Abstract

The invention relates to a process for producing a catalyst for gas-phase oxidations, which comprises weighing a particulate inert support having a total mass of $M_{support}$ into a fluidized-bed apparatus, providing an aqueous suspension of a catalytically active material or sources therefor and a binder having a binder content of B_{susp}, fluidizing the inert support by introduction of a gas stream heated to a temperature of T_{gas} at a flow rate of Q_{gas}, and spraying the suspension at a rate of Q_{susp} onto the fluidized inert support. When Q_{gas}, Q_{susp}, B_{susp}, $M_{support}$ and T_{gas} are selected within the ranges

$3000 \leq Q_{gas}$ [m^3/h] ≤ 9000, $1000 \leq Q_{susp}$ [g/min] ≤ 3500,

$2 \leq B_{susp}$ [% by weight] ≤ 18, $60 \leq M_{support}$ [kg] ≤ 240.

$75 \leq T_{gas}$ [°C] ≤ 120

so that a parameter K defined as

$$K = 0.020\ Q_{gas} - 0.055\ Q_{susp} + 7.500\ B_{susp} - 0.667\ M_{support} + 2.069\ T_{gas} - 7$$

satisfies the relationship $127.5 \leq K \leq 202$, high-quality coatings can be produced and the formation of twins made up of support particles adhering to one another can be avoided.